REMARKS

Claims 17-51 are now pending in the application. Claims 26-32 were previously withdrawn. Claims 17, 20, 21, 22, 33, and 48 have been amended to address a mere informality and the amendments presented herein should not be considered to be narrowing amendments to the scope of the claims. Applicants believe that these amendments to the claims place the application in condition for allowance per the Examiner's suggestion and respectfully request entry and consideration of the amendments after final rejection.

Claim 50 has been amended and support for this amendment is found, for example, at Applicants' specification as originally filed, at Paragraphs 7 - 9, for example. The amendments to Claim 50 are similar to the amendments previously introduced in response to the non-final office action and are related to the reversibility of hydrogen storage in the imide hydrogen storage material. In this regard, Applicants submit that the amendment to Claim 50 does not raise an issue of new matter, nor should it require any additional searching. The Examiner is respectfully requested to enter these amendments after-final and to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTIONS UNDER 35 U.S.C. §§ 112

Claims 17-25 and 33-51 stand rejected under 35 U.S.C. §112, Second Paragraph, for indefiniteness due to the use of the language "at least one of". This rejection is respectfully traversed. Per the Examiner's suggestion, Claims 17, 20, 21,

22, 33, and 48 have been amended to replace the above limitation of "at least one of" and to recite the more traditional Markush terminology of "at least one member selected from the group consisting of". Applicants note that MPEP 2173.01 permits Applicants to use "any style or format of claim which makes clear the boundaries of the subject matter for which protection is sought." Thus, these amendments to the claims address a mere informality and should not be construed as narrowing amendments. Accordingly, Applicants respectfully request reconsideration of the claims and submit that the claims are in condition for allowance.

REJECTIONS UNDER 35 U.S.C. §§ 102 AND 103

Claims 50 and 51 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Chen, et al (2003/0129126), hereinafter the "Chen" reference. This rejection is respectfully traversed.

Claim 50 has been amended to recite an imide hydrogen storage material that reversibly stores hydrogen. The imide is formed by reacting particles containing amide and particles containing hydride. When the imide is exposed to hydrogen, it forms at least one of an amide and a hydride. The imide is represented by $M^c(NH)^{-2}_{c/2}$, where M represents ~~a~~ at least one cationic species selected from the group consisting of Li, Mg, Na, B, Al, Be, and Zn, and where c represents an average valence state of M.

Chen does not disclose or recognize that a specific compound, namely an imide, is capable of reversibly storing hydrogen. Chen lacks any disclosure, suggestion, or motivation to arrive at the invention as claimed in Claim 50 or its dependent Claim 51. In fact, the Chen reference teaches away from the reversibility of such a compound.

In Chen, an amide (such as $LiNH_2$) and a hydride (such as LiH) are reacted with hydrogen at specific temperature and pressure conditions to form an allegedly novel compound. Paragraphs 45-46 at page 4; Equation 3. While the Chen reference refers to this compound as a lithium-enriched imide, the compound has a different structure and allegedly different and improved physical characteristics. Paragraphs 45 and 49 at page 4. In Equation 3, Chen discloses the potential formation of an imide, however, the Chen reference explicitly discloses that the only reversible reaction to store hydrogen occurs with the novel compound Li_mNH_n, where $2<m<3$, $0<n<1$, $m+n = 3$, being exposed to hydrogen at specific temperature and pressure conditions to form an amide and a hydride. *See* Equation 4 and Paragraphs 49-51 on Page 4. Thus, the reaction between Li_mNH_n and hydrogen was demonstrated to be the only route for reversible hydrogen storage. *See e.g.,* Paragraph 49 at Page 4. The Chen reference does not disclose or suggest that an imide can be exposed to hydrogen and form the starting materials of the amide and hydride compounds. Further, the Chen reference specifically excludes a lithium imide compound from Equation 4. In this regard, Chen fails to disclose each and every limitation of Claims 50 and 51. Not only does Chen fail to disclose each limitation as recited in Claim 50, but when Chen is considered in its entirety, it teaches away from a reversible hydrogen storage imide material.

While the Chen reference discloses that an imide can be formed in Equation 3, it then goes on to exclude an imide compound from being formed from the hydrogen release reaction of an amide and a hydride in Equation 4, where m is greater than 2 and n is less than 1 (but not greater than or equal to and less than or equal to, as in Equation 3). This reinforces the teaching that the allegedly novel "Li-enriched imide" is

the only compound of the Chen reference that is disclosed or suggested as being capable of storing hydrogen and reversibly forming an amide and a hydride. Since Chen fails to provide any disclosure or motivation to form an imide hydrogen storage material that reversibly stores hydrogen; has one or more cationic species selected from the group consisting of Li, Mg, Na, B, Al, Be, and Zn; and is formed by a reaction between two hydrogen-containing compounds, namely an amide and a hydride, at least one of which is re-formed when the imide is exposed to hydrogen, Chen does not anticipate or render independent Claim 50 obvious. Thus, Applicants respectfully submit that Claim 50 and its dependent Claim 51 are not anticipated nor are they rendered obvious by the Chen reference. Accordingly, Applicants respectfully request withdrawal of the rejection and reconsideration of these claims.

REJECTION UNDER DOUBLE PATENTING

Applicants note the attachment of a timely filed Terminal Disclaimer in compliance with 37 CFR 1.321(c). Applicants respectfully submit that the Terminal Disclaimer attached brings Claims 17-25 and 33-51 into patentable condition. However, this terminal disclaimer should not be construed as an admission that the present claims are obvious in view of U.S. Application Serial No. 10/603,474, either by itself or in light of the Chen reference. Further, it should be noted that the present application claims priority under 35 U.S.C. §120 to the 10/603,474 patent application. Accordingly, in light of the terminal disclaimer, Applicants respectfully request that the rejections be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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